BULLETIN 623
Reprinted JUNE 1954

THE CARE OF PLANTS IN THE HOME

KENNETH POST

Cornell Extension Bulletin

THE CARE OF PLANTS IN THE HOME

KENNETH POST

PLANTS in the home are ornaments and should add interest to the interior arrangement. Some are attractive but can be kept only for a short time. Calceolaria, cineraria, Christmas begonia, genista, poinsettia, and others are examples. Such short-lived plants should be considered as a bouquet of cut flowers and may well be discarded after they have flowered. Usually, with proper care, they last much longer than do cut flowers.

The home is not an ideal place to grow plants because usually the light is poor, the temperature too high for most plants, and the air too dry and often filled with illuminating gas that is harmful to plants. Many plants, however, can be propagated and grown to maturity in the home if a few rules are followed and if the requirements of the plant are considered.

The purpose of this bulletin is to tell how to keep the short-lived plants as long as possible and how to care for those that can be grown.

REQUIREMENTS FOR GROWTH

Light

THE rate of growth and the length of time the plant remains in good condition in the home is largely dependent upon the intensity of the light it receives, for light is a source of energy for the production of food. Most plants thrive in full sunlight throughout the year, and only a few should be shaded from the sun during the brightest part of the day. Because some plants grow in less light than do others, one should consider this in selecting a plant for a special place, that is, whether the plant is to be in an east, west, north, or south window. In a house not shaded by trees, porch, or other objects, and in windows of the same size, either an east, west, or south window is good. The north window would supply as much light in summer as would any other in winter. Trees and other obstacles often render a south window inferior to an unshaded north window. Drapes, shades, and curtains reduce the intensity of light, and seldom are two windows alike in light conditions.

Most of the flowering plants require sunlight for satisfactory growth, and should be obtained in full bloom or well budded and allowed to open in the home. Many foliage plants grow well where the light is only bright enough to permit reading most of the day.

In the home the three intensities of light for the growth of plants are: (1) *sun* part of the day, which is best for nearly all the flowering plants; (2) *bright light,* which is just out of the sun or in the unshaded north window, suitable for plants that flower for a short time or for ferns and many foliage plants; and (3) *shade,* which is light of enough intensity to read by most of the day, suitable for sansevieria, palms, peperomias, philodendron, and a few others.

Bright, artificial light keeps many plants alive a longer time than if they were kept in the dark. To be most effective, it should shine on the plant at least ten hours each day. Plants in poorly lighted positions have to be replaced frequently.

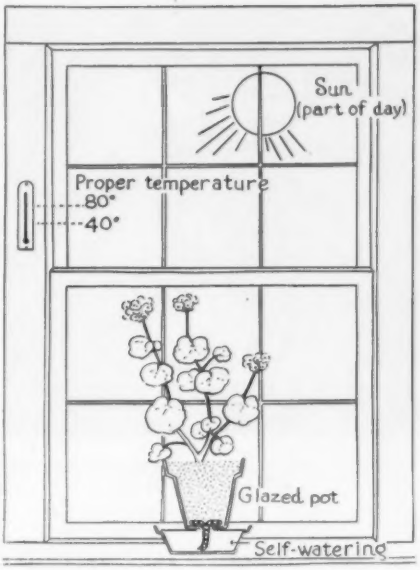

FIGURE 1. SUN PART OF DAY, PROPER TEMPERATURE, AMPLE MOISTURE ARE ESSENTIAL FOR PLANT GROWTH

Temperature

The best night temperature for all plants is between 50° and 60°F. The length of life of a flowering plant is reduced by high, night temperature regardless of other conditions. A plant in bright light during the day may be given a night temperature near 70°F., but one in poor light needs a lower temperature. A plant near the window is cooler than one far from it, because of the radiation of heat from the plant to the cool glass. It is well to remove plants from a warm room to a cool place at night.

Probably temperature fluctuations in the home are of little importance if the range is between 40° and 80°F. and if the temperature at night is lower than that during the day.

Water

The soil should be kept moist at all times, but most plants should never stand in water. The best way to maintain proper soil moisture is the "self watering" method (figure 1). The principle is that of capillary movement of

FIGURE 2. AFRICAN VIOLET DOES ESPECIALLY WELL IN A SELF-WATERING POT

water from a supply container through a wick to the soil, then through the soil to the roots. It works like a lamp wick carrying oil to the flame.

The wick may be made of burlap or cheesecloth; however, fiberglass wicking especially for this purpose is available. A fiberglass wick lasts indefinitely and conducts the water uniformly. The wick is placed through the drain hole in the pot, about 1½ inches is unraveled and spread on the bottom of the pot, and then the plant is replaced. Any cinders or broken pots in the base of the soil ball should be removed and replaced by sand or soil. The soil ball is jarred to assure contact of the soil with the wick. The flower pot is then set on a container that holds water. The use of a wick assures no water splashing on furniture. The container below the plant must always have water. If the soil should become dry on top, the pot may be half submerged in water for half an hour before returning it to its original position.

Humidity

The drier the air, the greater the loss of water from the plant. Of the various ways to humidify the air around the plant, few are seldom practiced. Sprinkling the foliage or setting the pot on wet pebbles is hazardous to the furniture and is unattractive. If enough water is given in the correct manner, methods of increasing humidity can be forgotten. The air in the room should be as humid as possible both for the good of the family and for the needs of the plants. Plants tend to increase the humidity of the air, but they are not so effective as is a teakettle of water on a hot stove.

Ventilation

Plants in light remove carbon dioxide from air and put oxygen into it. At night they give off some carbon dioxide, but so little that it is of no importance. Plants need not be removed from the bedroom or sickroom at night

to assure the health of the patient; for, if an entire plant were converted to carbon dioxide, the amount produced would be of no importance. Usually the patient's room is cooler than the room to which the plants are taken; consequently they fade earlier by such treatment.

Ventilation reduces the concentration of any illuminating gas that may be present. Illuminating gas usually causes the lower leaves of plants to turn yellow and drop.

Artificial or coal gas can be detected in the home by bringing freshly cut carnations into the room. The petals close upward, "go to sleep," in from six to ten hours when gas is present. One cannot detect *natural gas* by this method, but it causes the plants to harden, lose their leaves, and to stop growth. Plants are affected by gas long before humans detect it. One should take every precaution to prevent its escape into the room. If it does escape into the home, perhaps the piping in the house is faulty or the gas main in the street may be leaking.

Plants should never be placed where air blows over them freely, such as over a radiator, in front of a fan, or in an open window. The loss of water in such a position is greater than the roots can supply and the plants may wilt.

CONTAINERS

THE type of container is of little importance. The arguments for and against all types finally comes back to the supply of moisture in the soil. The soil must be kept moist but not saturated with water regardless of the kind of container.

Glazed, painted, or metal containers prevent the loss of water, while an ordinary clay flower pot is porous and as much water is lost from it as is lost through the plant. Plants in glazed containers, therefore, need to be watered less frequently.

Most flower pots have a hole in the bottom to permit the escape of surplus water. Surface watering usually requires this arrangement. Plants in containers with no outlet require more careful watering to prevent saturating the soil. A hole in the pot is essential for self-watering.

The color of the container should blend well with the plant and surroundings. Nearly any color fits well in some locations, but safe colors are reddish brown, gray, white, green, or cream.

SOIL AND POTTING

A GOOD soil mixture for all house plants is made of one part each of rotted leaves, peat, or leached well-rotted manure; of sand, and of good garden soil.

FIGURE 3. GERANIUM PLANTS IN TOO SMALL (LEFT), PROPER SIZED (CENTER), AND TOO LARGE (RIGHT) POTS

Plants obtained in full bloom from the florist usually require no potting or shifting until they have completed growth and are ready to be started again.

Plants that grow slowly may require a larger pot only every two or three years. A plant may be repotted in the same pot by removing some of the soil and replacing that with new soil. The pot should not be so large that it makes the plant appear small. The appearance of the combination should determine when to use a larger pot. Usually, a larger pot is needed when the soil becomes matted with roots.

FERTILIZER

FERTILIZER does not offset the effects of poor light, high temperature, or other factors causing poor growth. It seldom benefits a sick plant, and over-fertilization may kill or seriously injure plants.

A mature plant obtained from a florist requires no fertilizer for at least six weeks and usually needs none for a longer period. Other plants growing in the home generally require an application of fertilizer only three or four times each year.

A mixed fertilizer of a 4-12-4 or 5-10-5 analysis may be used at the rate of a teaspoonful to a pot 5 inches in diameter. It can be watered into the soil after its application. Patented fertilizers in tablet, powder, or liquid form are more expensive but are satisfactory. If no commercial fertilizer is available for use on house plants, one can probably best remove the plant from the pot and repot it in the same container. Use newly prepared soil to replace that removed from the top and bottom of the ball of soil.

Tea, coffee, castor oil, and other remedies, and stimulants are of no value other than for the small amounts of fertilizer they supply.

Usually, soil acidity needs no consideration except for such plants as hydrangea, azalea, and gardenia that require acid soil.

PINCHING

MANY plants become tall and ungainly unless they are pinched to cause branching. Coleus, geraniums, some begonias, snapweed, and others belong to this group. Pinching consists of removing the very tip of the plant

FIGURE 4. A FERN THAT NEEDS NO PINCHING, AND A GERANIUM THAT SHOULD HAVE THE TIP REMOVED

The Boston fern requires no pinching because it produces its leaves from near the ground; the geranium should have the very tip removed to cause branching.

by pinching it off with the fingernail or cutting it out with a knife. It is necessary to do this to the side shoots as well to obtain a well-shaped, bushy plant. The pinching is usually done when the shoot is about 4 to 6 inches long. Other plants, such as primulas, ferns, cyclamens, and the like, form a bushy plant naturally without pinching.

TROUBLES

Dying of the foliage from the base upwards may be due to a lack of light, improper watering, high temperature, or gas injury.

Yellowing of the foliage is caused by excessive applications of a fertilizer, too wet soil, or poor light. The roots are usually injured. If these conditions are definitely not the cause and the pot is full of roots, fertilizer may be needed or the soil may be too alkaline. Such a plant may as well be discarded unless it lacks fertilizer.

Rotting at the base is caused by fungi or bacteria, and a house plant thus affected should be discarded.

Dead areas on the edges of leaves result from injury to the roots by fertilizer or by improper watering.

Dead spots in the leaf result from excess sunlight, dry soil, disease, or insects.

Many insects injure house plants in various ways. Some of these insects are aphids, mealy bugs, white flies, red spider mites, scale insects, and thrips. Information on the control of these may be obtained from the Department of Entomology, Cornell University, Ithaca, New York.

PROPAGATION

MOST plants that can be grown successfully in the house are propagated by cuttings. Leaf cuttings are used for propagating Rex begonia, sedum, and sansevieria. Leaf-petiole cuttings are used for propagating tuberous-rooted begonia, Christmas begonia, gloxinia, peperomia, and African violet, and leaf-bud cuttings for propagating English ivy, wax plant, Nephthytis, philodendron, German ivy, and Cissus.

FIGURE 5. TYPES OF CUTTINGS
Top, left to right: Terminal cutting of coleus, terminal cutting of cyperus, leaf-bud cutting of philodendron. Bottom, left to right: Leaf-petiole cutting of gloxinia, leaf cutting of sansevieria, leaf cuttings of *Begonia heracleifolia*.

Terminal cuttings are used for most other plants, as ever-blooming begonias, gardenia, geraniums, poinsettias, and many others. Nearly all plants with a well-defined terminal growing point belong to this class.

A few plants, such as ferns, African violets, and begonias, can be divided. If the plant has several growing points at the surface of the ground, it may be cut so that one or more growing points remain in each section.

Cuttings are rooted in clean sand which must be kept moist and shaded. Some can be rooted in shallow water.

FIGURE 6. A SELF-WATERING POT FILLED WITH SAND, FOR ROOTING ALL KINDS OF CUTTINGS

PLANTS FOR THE HOME

SOME plants are grown primarily for their foliage, although some do flower under proper conditions. Many of these can be grown in poor light. The most showy flowering plants, such as begonias, chrysanthemums, azaleas, and others, are best obtained in full bloom or well supplied with buds from the florist. Some of them can be carried over and flowered again; others may be grown in the garden; some should be discarded after flowering. Only the more common house plants are discussed in the following paragraphs.

Upright-Foliage Plants

Air Plant or **Life Plant** (Kalanchoe or Bryophyllum) grows in bright light or sun. Propagation is by the young plants that form on the edge of the leaf. One kind has flat leaves and another has tubular leaves.

Aloe grows in full sun or shade and needs not too much water. Propagation is by small shoots that form near the base of the plant.

Anthericum grows in bright light. Propagation is by young plants that form on the stems.

Boston Fern (Nephrolepis) grows best in bright light. Propagation is by runners that form new plants when they strike the soil.

Cacti grow in full sun or shade. A sandy soil and not too much water are

best. Propagation is by seeds or cuttings. (Refer to *Christmas Cactus,* page 13.)

Caladiums require bright light and a uniformly moist soil. Propagation is by division of tubers.

Cast Iron Plant (Aspidistra) grows under any conditions. Propagation is by divisions.

Century Plant (Agave) requires sun or shade and not too much water. Propagation is by cuttings of the small side shoots near the base.

Chinese Water Evergreens (Aglaonema) grows well in shade, in soil or water, and in any soil moisture. Propagation is by cuttings rooted in water or sand.

Coleus should be grown in sunlight. Propagation is by terminal cuttings. New plants should replace old ones frequently because of the ungainly growth. The plants require pinching to cause branching.

Jade Plant (Crassula) grows in shade or sun. Propagation is by leaf or terminal cuttings.

Maranta is a creeping plant that grows best in bright light or shade in shallow containers. The soil should be kept very moist.

Norfolk Island Pine (Araucaria) is not a good house plant. It should be given bright light. Propagation is by terminal cuttings.

Peperomia should be grown in bright light or shade. Propagation is by terminal cuttings or by leaf-cuttings.

Pick-a-Back Plant (*Tolmiea Menziesii*) does well in sun or bright light. Propagation is by the young plants that form on the leaves.

Rubber Plants (*Ficus*), many varieties, grow well in bright or poor light. Propagation is by leaf-bud or terminal cuttings.

Silk Oak (Grevillea) grows in sun or bright light. Propagation is by seeds.

Strawberry Geranium (*Saxifraga sarmentosa*) grows best in sun or bright light. New plantlets develop on runners.

Velvet Plant (Gynura) does best in bright light. Propagation is by terminal cuttings. The plant requires pinching to cause branching.

Foliage Vines

Asparagus grows best in full sun or partial shade. Propagation is by seeds or division.

Baby's Tears (Helxine) requires bright or poor light and plenty of water, but watering should be done from below rather than from above. The plant should be grown in a shallow container and the base of the container kept in water, or a wick should be used. Propagation is by division.

English Ivies (*Hedera Helix*), many varieties, grow well in bright light and in very poor light. Propagation is by terminal cuttings.

German Ivy (*Senecio mikanioides*) needs sun or bright light. It does poorly in the home because of lack of light; it grows best in a window box outside. Propagation is by leaf-bud or terminal cuttings.

Grape Ivy (*Cissus*) grows best in bright light but withstands poor light well. Propagation is by leaf-bud or terminal cuttings. Two kinds are available.

Nephthytis does well in bright light or shade, and needs plenty of water. Propagation is by leaf-bud or terminal cuttings.

Periwinkle (*Vinca major*) requires sun. It is not a good house plant but is good for a window box in sun or shade. Propagation is by leaf-bud or terminal cuttings.

Philodendron can be grown in bright light or poor light. It may be grown in water or dry soil. Propagation is by leaf-bud or terminal cuttings.

FIGURE 7. SOME FOLIAGE VINES

Top, left to right: *Cissus antarctica, Cissus rhombifolia, Pathos aureus, Philodendron cordatum, Piper nigrum, Scindapsus aureus*
Center, left to right: Tradescantia, Zebrina, *Pelargonium peltatum, Ficus pumila*
Bottom, left to right: *Hoya carnaso, Nephthytis liberica*

Wandering Jew (Tradescantia or Zebrina) grows in sun or bright light. Propagation is by terminal cuttings.

Wax Plant (*Hoya carnosa*) grows in sun or bright light. Propagation is by leaf-bud or terminal cuttings.

Flowering Plants

Achimenes can be grown from the cone-like storage root planted during March to May and placed in a sunny window. They flower during summer. After the plant has flowered, the soil should be allowed to dry gradually and then the plant stored in a cool, dark place. Before growth starts again the next year, the old soil should be shaken from the roots and replaced by new.

African Violet (Saintpaulia) does not flower in poor light. During summer, it should be placed in bright light; during winter, in sun. It will not endure summer sun. African violet is best watered from below; the wick method is excellent. It can be grown from a leaf-petiole cutting.

Amaryllis (Hippeastrum) bulbs planted about half under soil during November to January flower in early spring. They should be grown in sun. After flowering, they are kept growing in the pot or are planted in a shady place in the garden. They should be protected from frost. They are not allowed to dry.

Astilbe cannot be forced into bloom successfully in the home. Plants in flower obtained from the florist should be watered with a wick or set with the base of the pot in shallow water, and kept in sun or bright light. The plants are hardy and may be planted in the garden after danger of freezing. Propagation is by division.

Azalea (Rhododendron) grows in bright light or sun and needs a uniform supply of water. One should buy only plants with many buds and a few open flowers. The buds open in the home. After flowering, the plant may be kept in light where it will grow. After danger of freezing, it may be planted in the pot in the garden and kept moist during summer. Before frost, it should be placed in a cool, well-ventilated room where it does not freeze. A bedroom window is usually good. About January 1, it may be brought into the living room to flower. An acid, peaty soil is required.

Everblooming Begonia (*Begonia semperflorens*) needs sunlight. It can be grown in the window from a cutting from the base of the plant. It may be grown from seeds. It is a good bedding plant.

Calla Begonia (*B. semperflorens*) grows in bright light but not sunlight. Propagation is from cuttings only. It is grown primarily for the interesting foliage.

Rex Begonia and all rhizomatous forms grow in bright light but not sunlight. Propagation is by leaf cuttings. They are grown for the foliage.

FIGURE 8. A REX BEGONIA

Christmas Begonia (*B. socotrana*) is the most showy of the begonias but the most difficult to grow. It should be purchased with many buds, grown in sun, and discarded after flowering because of the difficulty of growing it in the home.

Tuberous-Rooted Begonias are planted in March in moist soil, grow in sun until May, and then in bright light. After they have finished flowering, the plants should be allowed to dry, and then the tubers placed in sand or dry peat and stored overwinter in a cool basement. They may be grown from seeds. They are excellent garden plants in a moist, shaded position.

Miscellaneous Begonias include the better varieties of fibrous-rooted forms. They grow best in sun or bright light and are propagated from terminal cuttings.

Butterfly Flowers or *Poor Man's Orchids* (Schizanthus) should be bought in flower and given full sun or bright light. They are annuals and die after flowering. They should not be grown from seeds in the home.

Calceolaria should be bought with many flowers and buds, kept in sun, and at about 50°F. at night. The plant should be discarded after flowering.

Calla (Zantedeschia), both the yellow and the white, should be grown in sun and given plenty of water. It is dried off during June and kept as cool as possible until August, when the white-calla corm is replanted in new soil and started into growth again. The yellow calla must be left in a dry condition until November or later. Propagation is by offsets of the fleshy storage organ.

Christmas Cactus (*Zygocatus truncatus*) grows in sun and where the night temperature during winter is from 60° to 65°F. It should not be kept dry like other cacti and does especially well if the soil is always moist. Flower buds start during October, and the plant will continue to flower during winter

and spring. Bud drop occurs when the temperature is too high or the light intensity too low. It can be grown out of doors in summer.

Christmas Pepper (*Capsicum frutescens*) should be bought in full fruit and discarded after it loses its value as an ornamental because it is an annual. It can be grown from seed planted during June or July and the seedlings grown in pots in the garden. (See *Jerusalem Cherry*, page 15.)

Chrysanthemum plants in the garden may be dug and potted during August to be flowered in the house. They should be kept out of doors as long as possible. They need sun. The varieties obtained from the florist are usually not hardy and may as well be discarded after flowering.

Cineraria should be obtained with buds and flowers, kept in sun, and placed in a room at about 50°F. at night. The plant should be discarded after flowering.

Citrus plants grow well in sun if given a good supply of water. They can be propagated from seeds or cuttings.

Cyclamen should be obtained with many flowers and placed in sun at a cool (50°F.) night temperature. The leaves turn yellow and the buds blast if the temperature is too high or the light intensity too low.

After the plant has flowered, the soil may be kept dry until June, when the corm can be removed and planted in new soil to grow the next year. In a cool bright window, the plant usually flowers again.

Easter Lily needs sun. The bulbs may be planted before Christmas and the plants will flower in the home, but to obtain a plant well budded and watch the buds open is more satisfactory. The plant should be discarded after flowering.

Fuchsia is not a good house plant unless it can be grown in sun. It is best for garden or window box. Flowering stops in summer because of high temperature. It is propagated from cuttings.

Gardenia should be grown in sun and the night temperature kept near 60°F. The buds drop if these conditions are not maintained. Even though it has no flowers gardenia makes an attractive foliage plant. Propagation is by cuttings.

Genista (Cytisus) loses its buds and flowers at a temperature above 60°F. It should not be expected to flower if grown in the home, but makes a good foliage plant. It should be obtained in full bloom.

Geranium (Pelargonium) is available in many varieties and some are most valuable for the odor of the foliage. All grow best in sun and all are propagated from cuttings.

Gloxinia (*Sinningia speciosa*) tubers planted during March or April flower in early summer. They grow and flower well in sun until May, when they should be placed in bright light. They are most satisfactory when watered

from below by a wick. After they have flowered the soil can be kept quite dry until the foliage wilts and dies, then the tuber, left in the soil, can be stored in the basement until the following spring when it can be removed from the soil and potted in new soil to start growth again.

Heather (Erica) grows in sun or poor light after the buds are nearly open. The soil must be kept especially moist. The plant should be discarded after flowering.

Hydrangea flowers are pink when the soil is slightly acid and blue on the same plant when the soil is very acid. The plant requires much water and grows best in sun and quite well in bright light. After the plant has flowered, the stems should be cut about 2 inches above the ground and planted in the garden. The new shoots flower the next year.

Before September 1 the plant should be dug, potted, and left outdoors in sun until the first light frost. Then it should be stored in a cool, dark place, such as the basement, until January 1, when it can be brought into the living room in a sunny window to grow and flower. The soil must be kept moist in storage as well as during the growing period. Yellow between the veins of the leaves usually is due to an alkaline soil.

Jerusalem Cherry (*Solanum Pseudo-capsicum*) is best obtained from a florist when fruits are mature. They naturally drop soon. It should be kept as cool as possible and in bright light. It is not advisable to keep the plant for another year because it becomes ungainly and seldom flowers well.

If it is to be carried over, it should be kept growing in sun and pruned severely to obtain the proper shape about May. It can be kept out of doors in summer. Probably it is more satisfactory to grow new plants from seeds planted during March and to grow them in poor soil during summer. They are potted September 1 and kept at a temperature above freezing, preferably in a cold-frame, until near Christmas. (See also *Christmas Pepper*, page 14).

Kafir-Lily (Clivia) grows well in the home and flowers in June. It may be kept in the same pot for years. It should be kept cool and in good light during winter, and placed in the garden in a pot during summer. Propagation is by division.

Kalanchoe (*Kalanchoe Blossfeldiana*) is obtained in bud or bloom and kept in sun or bright light. After flowering, it can be continued in growth and may flower another year. It is best to start new plants from seeds or cuttings. Flowering in the home is questionable because of poor light.

Lily-of-the-Valley (*Convallaria majalis*) pips (rootstocks) are dug from the garden after the foliage dies. They are stored at 30° to 40°F. until January when they can be planted in sand, soil, or moss and forced to flower by merely keeping them wet. They can be grown in bright light. They are discarded after flowering.

Orchids may be grown in a case where the humidity can be kept high, but it is more satisfactory to purchase plants with buds ready to open and let them open in the home. After flowering they are best returned to the greenhouse where better care can be given than in the home. They grow better in sun or bright light. The flowers last several weeks.

Poinsettias (*Euphorbia pulcherrima*) are best obtained in full bloom, grown in sun, and discarded after Christmas. They seldom flower in the home because of the high temperature and the poor light. If one cares to grow them a second year, the soil is dried after flowering and the plants are stored in a cool room. They are cut to 5 or 6 inches from the ground in May and allowed to grow again. They may be planted in pots in the garden in summer and taken into the home September 1. Leaf drop is caused by poor light, high temperature, or improper watering.

Primulas grow in sun and a cool night temperature. The plants are discarded after flowering. They are difficult to continue in growth during summer.

Roses need sun and plenty of moisture. After flowering, the plant should be kept in sun and grown until it can be planted permanently in the garden. They are hardy.

Shrimp Plant (*Beloperone guttata*) grows in bright light. New plants are produced from cuttings.

Slipperwort (Calceolaria) is purchased in bloom or with blooms and many buds. It is kept in sun, and discarded after flowering. The foliage yellows if the light is poor.

Snapweed (Impatiens) is grown in sun in winter. Its best use is in a window box in shade or in a shady spot in the garden. Propagation is by cuttings.

Bulbs for Forcing

Tulips, narcissi, hyacinths, and other hardy bulbs can be planted in pots in September or October and kept in a cool basement at about 40° to 50°F. to January, when they can be brought to the living-room window and made to flower. The soil must be kept moist in storage. The plants grow in sun.

After the plant has flowered, the foliage should be allowed to grow until it turns yellow when the soil can be dried and the bulbs later planted in the garden. One should not attempt to force the same bulbs in two successive years.

Paper-White Narcissi bulbs should be planted in pebbles or soil and placed directly in the sun in the living room. Cold treatment before forcing is of little value.

A publication of the
New York State College of Agriculture,
a unit of the State University of New York,
at Cornell University

Published by the New York State College of Agriculture at Cornell University, Ithaca, New York. L. R. Simons, Director of Extension. This bulletin is published and distributed in furtherance of the purposes provided for in the Acts of Congress of May 8 and June 30, 1914.